

No. 2289

"There is hereby established a State Veterinary College at Cornell University." Laws of New York, 1894, p. 307.

ANNOUNCEMENT

OF THE

NEW YORK STATE
VETERINARY COLLEGE

AT

CORNELL UNIVERSITY

ITHACA, N. Y.

PUBLISHED BY THE UNIVERSITY

1896



NEW YORK STATE VETERINARY COLLEGE—MAIN BUILDING.

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FACULTY OF THE

NEW YORK STATE VETERINARY COLLEGE

JACOB GOULD SCHURMAN, D.Sc., LL.D., *President.*

JAMES LAW, F.R.C.V.S., *Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science, and Veterinary Therapeutics.* *appointed about July 1896 -*

Walter L. Williams, *Professor of Principles and Practice of Veterinary Surgery, Zootechny, Obstetrics, and Jurisprudence.*

PIERRE AUGUSTINE FISH, B.S., D.Sc., D.V.S., *Assistant Professor of Veterinary Physiology, Materia Medica and Pharmacy.*

VERANUS ALVA MOORE, B.S., M.D., *Professor of Veterinary Pathology and Bacteriology, and of Meat Inspection.*

SIMON HENRY GAGE, B.S., *Professor of Microscopic Methods, Histology and Embryology.*

GRANT SHERMAN HOPKINS, B.S., D.Sc., *Assistant Professor of Veterinary Anatomy and Anatomical Methods.*

BENJAMIN FREEMAN KINGSBURY, A.B., Ph.D., *Instructor in Veterinary Pathology and Bacteriology.* *Microscopic Methods, Histology + Embryology*

RAYMOND CLINTON REED, Ph.B., *Instructor in Microscopic Methods, Histology and Embryology.* *Veterinary Pathology + Bacteriology.*

PROFESSORS AND TEACHERS IN CORNELL UNIVERSITY WHO FURNISH INSTRUCTION TO VETERINARY STUDENTS.

GEORGE CHAPMAN CALDWELL, B.S., Ph.D., *Professor of Agricultural, Analytical and Physiological Chemistry.*

LEWIS MONROE DENNIS, Ph.B., B.S., *Associate Professor of Analytical Chemistry.*

WILLIAM RIDGLEY ORNDORFF, A.B., Ph.D., *Assistant Professor of Organic Chemistry.*

EMILE MOUNIN CHAMOT, B.S., *Instructor in Toxicology.*

FREDERICK LAWRENCE KORTRIGHT, D.Sc., *Instructor in Chemistry.*

HENRY HENDERSON DENHAM, B.S., *Instructor in Chemistry.*

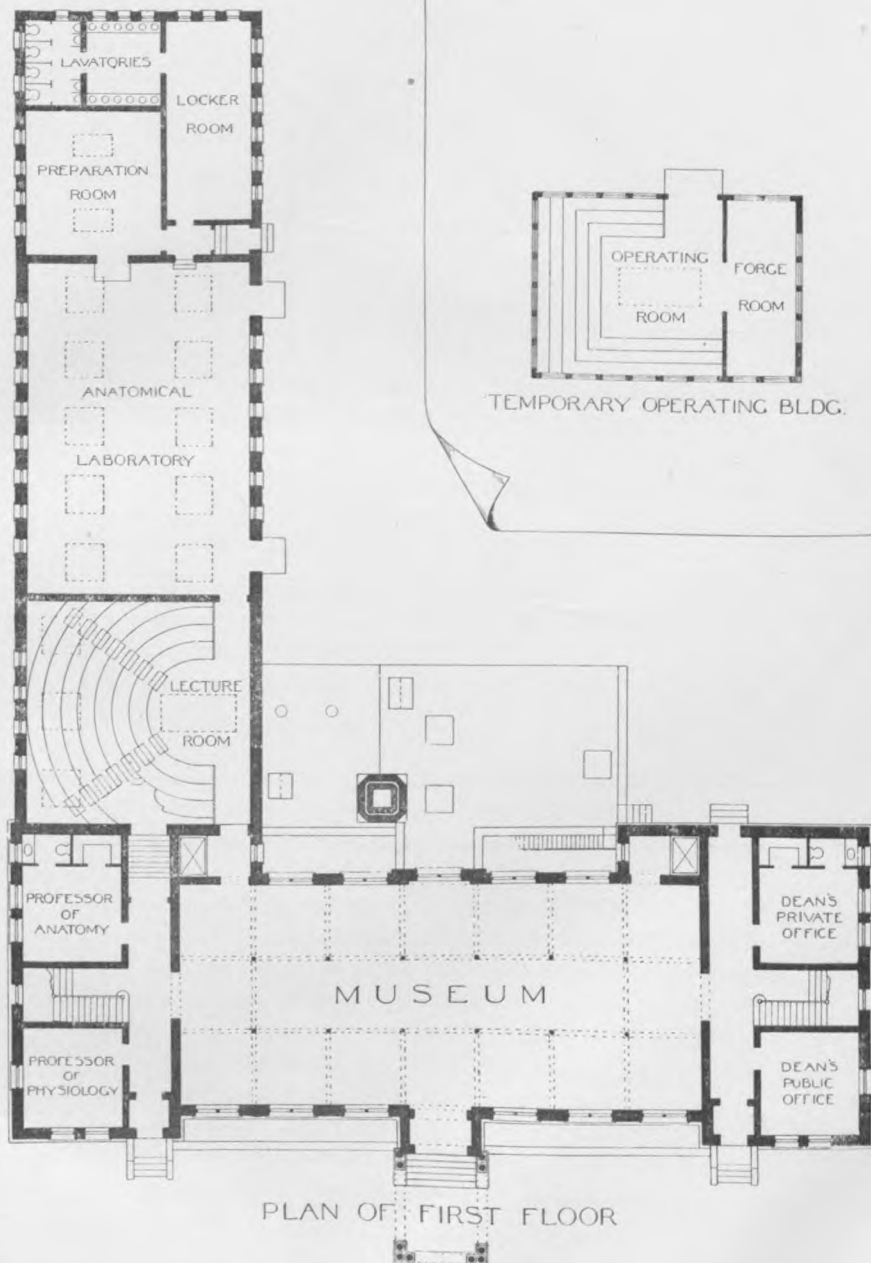
GEORGE PLATT KNOX, B.S., *Assistant in Chemistry.*

ISAAC PHILLIPS ROBERTS, M.Agr. *Professor of Agriculture.*

HENRY HIRAM WING, M.S., *Assistant Professor of Animal Industry and Dairy Husbandry.*

JOHN HENRY COMSTOCK, B.S., *Professor of Entomology and General Invertebrate Zoology.*

ALEXANDER DYER MCGILLIVRAY, *Assistant in Entomology.*



FOUNDATION.

The New York State Veterinary College at Cornell University originated in the following legislation :

AN ACT to establish a State Veterinary College at Cornell University.

Became a law March 21, 1894, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. There is hereby established a State Veterinary College at Cornell University. For the purpose of constructing and equipping suitable buildings for such college upon the grounds of said university, at Ithaca, New York, the sum of fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated, to be paid by the treasurer upon the warrant of the comptroller, upon vouchers approved by the commissioner of agriculture, to the Cornell University. No part of such moneys shall be expended until plans and specifications for the construction and equipment of such buildings, and of the location thereof, shall have been approved by the commissioner of agriculture, nor until the comptroller shall have certified that in his judgment the expense of the completion and equipment of such buildings, in accordance with such plans and specifications, will not exceed the amount of such

appropriation. Such buildings and equipment shall be the property of the state.

§ 2. This act shall take effect immediately.

At their first meeting (June 20, 1894,) after the enactment of the foregoing law, the Board of Trustees of Cornell University adopted the following preamble and resolution :

WHEREAS, The Legislature of the State has passed an act (approved March 21, 1894,) to establish a State Veterinary College at Cornell University ; and

WHEREAS, An institution for instruction and investigation in Veterinary Science, of higher rank than any now in existence in America, is urgently needed in order that the power of science may stay the terrible havoc made by tuberculosis and other diseases among animals and human lives in this State ; and

WHEREAS, No power but the State is potent enough to cope with these diseases, or has the authority to use all the means necessary for their extermination ; and the Governor and other State officers have officially declared that the chief obstacle at the present time to success on the part of the State is the lack of trained veterinarians, and they have officially recommended the establishment by the State of an institution at Cornell for investigation and instruction in all the sciences relating to animal diseases ; and the Legislature has, without a dissenting voice, passed an act for the establishment of such State Veterinary College, and for the appropriation of \$50,000 to construct buildings therefor, which act has been approved by the Governor and become a law ; and

WHEREAS, It is the policy of Cornell University, in conformity with its ideal of a people's university, to co-operate with the State in scientific work for the improvement of the farm, garden, dairy, animal, and other interests of the State,

in so far as existing departments may, without detriment to the University, be utilized, or new departments may be expressly established by the State, for the purpose of such co-operation : therefore

Resolved, That the Board of Trustees authorize the location on the University grounds of the State Veterinary College and express their willingness, when the State shall have made sufficient provision for buildings, equipment and maintenance, to administer the State Veterinary College in such manner as may be hereafter agreed upon, subject, however, to the condition, that the University is not to undertake any part whatsoever of the financial responsibility connected with the State Veterinary College, whether for buildings, equipment, care, experimentation, investigation, instruction, or any other object, though, for the sake of reducing the cost of maintenance to the State, the University consents to furnish instruction to students of the State Veterinary College in such scientific and other subjects as are now or may hereafter be included in the curriculum of the University, upon such terms as may be deemed equitable, regard being had to the fees paid by University students for instruction in such courses.

AN ACT relating to the State Veterinary College at Cornell University.

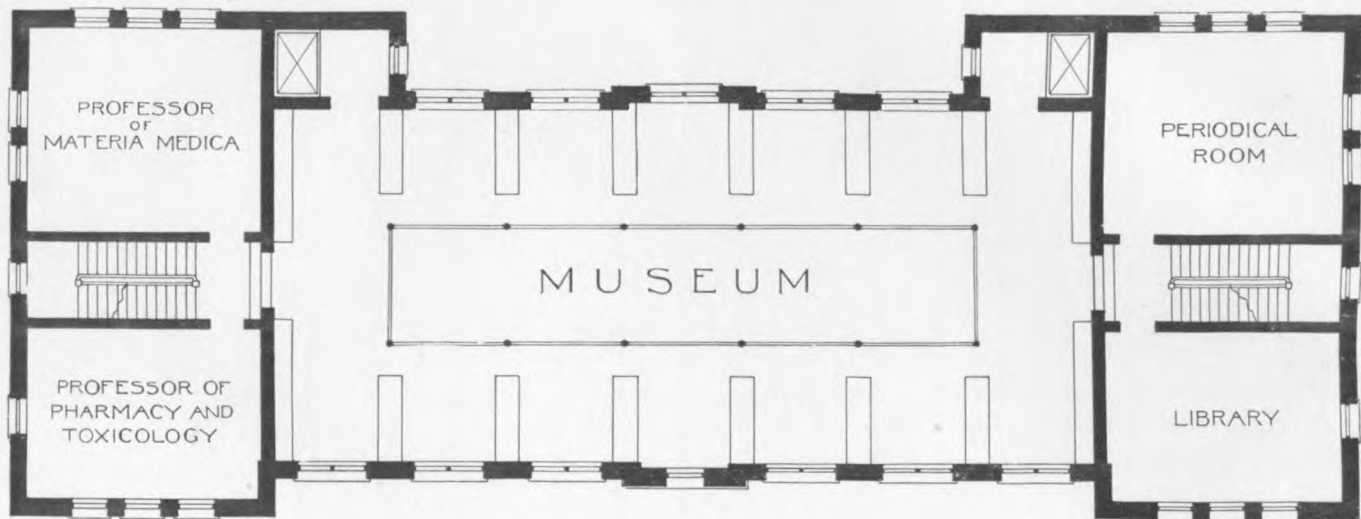
Became a law May 10, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

SECTION 1. For the purpose of constructing and equipping suitable buildings for the State Veterinary College at Cornell University, at Ithaca, New York, the sum of one hun-

dred thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of funds not otherwise appropriated, to be paid by the treasurer, upon the warrant of the comptroller, upon vouchers approved by the commissioner of agriculture, to the Cornell University. No part of such moneys shall be expended until plans and specifications for the construction and equipment of such buildings and the location thereof shall have been approved by the commissioner of agriculture, nor until the comptroller shall have certified that, in his judgment, the expenses of the completion and equipment of such buildings, in accordance with such plans and specifications, will not exceed the amount of such appropriation. Such buildings and equipment shall be the property of the state.

§ 2. This act shall take effect immediately.



PLAN OF SECOND FLOOR

OBJECT OF THE INSTITUTION.

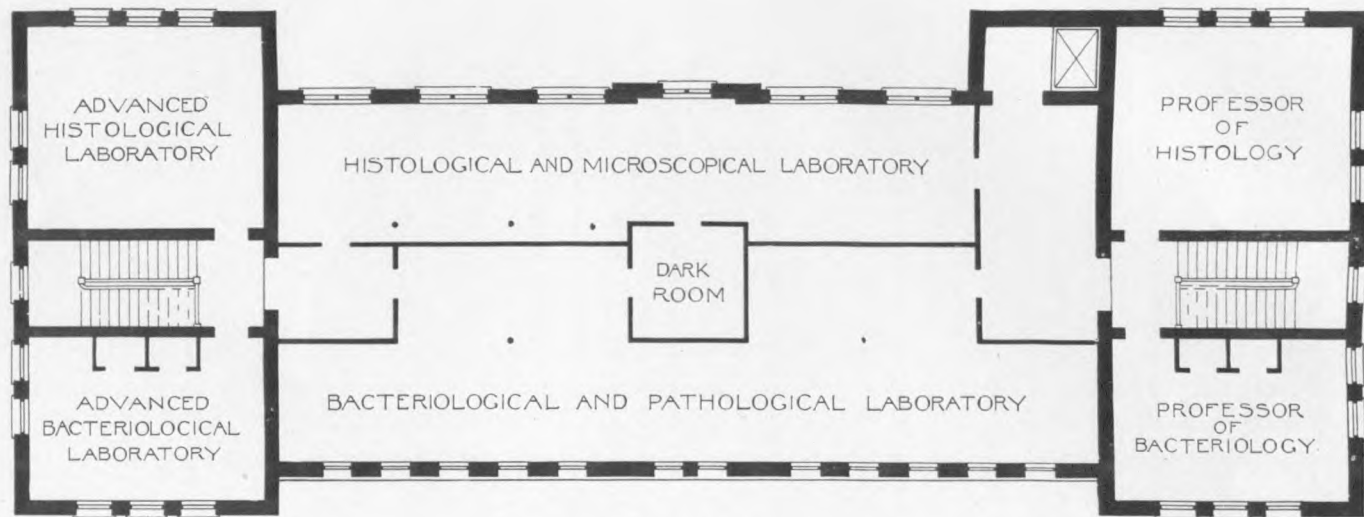
The New York State Veterinary College was founded to raise the standard of veterinary instruction and investigation to the level of the most recent advances in biology and medicine. The number of farm animals in this State (9,450,000), and their value (\$131,200,000), with a yearly product, in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States a value in live stock of, approximately, \$2,000,000,000, and a yearly sale, in Chicago alone, of \$250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent on the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted; so that the health and improvement of animals and the fostering of the animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence on the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies—tuberculosis—also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it will be the aim of the College to thoroughly train a class of veterinarians for dealing with all diseases and

defects that depreciate the value of our live stock, and with the causes which give rise to them, to recognize and suppress animal plagues, which rob the stock owner of his profits, and cause widespread ruin ; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a center of investigation, looking towards such improvements in the breeding, care and management of animals as may enhance their market value and make returns more speedy and profitable ; towards discoveries in therapeutics, and the immunization of animals and men from contagion ; and towards the production of organic compounds to be employed in diagnosis, treatment and immunizing. So much has been recently discovered in these directions, and present knowledge points so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and the private practitioner, for prevention, diagnosis and treatment, is an object not to be lightly set aside. The combination in one institution of educational facilities with scientific investigation, and the production of the organic extracts to be employed in the modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

LOCATION AND GROUNDS.

The New York State Veterinary College is located at Ithaca, on the campus of Cornell University, fronting on East Avenue, and facing the University buildings. Electric cars on East Avenue convey students and visitors to any part of the city. Ithaca, with its population of 12,000, is situated at the head of Cayuga Lake, 262 miles distant from New York City, and on the lines of the Delaware, Lackawanna and Western, the Lehigh Valley, and the Elmira, Cortland and Northern railroads. The University grounds are half a mile from the



PLAN OF THIRD FLOOR

business center of the city and 400 feet higher, commanding a view of 30 miles of valley and lake. They comprise 270 acres, of which 140 are used by the department of agriculture, and furnish home facilities for clinics and zootechnics. On the campus of 80 acres are 36 professors' houses, 5 fraternity houses, and over 30 University and College buildings.

BUILDINGS.

The buildings for the State Veterinary College are seven in number, as follows :

The MAIN BUILDING, 142 feet by 42 feet and three stories high, overlooks East Avenue and an intervening park of 220 feet by 300 feet. The walls are of dull yellowish buff pressed brick, on a base of Gouverneur marble ; window and door facings of Indiana limestone, and terra cotta ornamentation. On the first floor are the museum and rooms for the dean and the professors of anatomy and physiology. The second floor is devoted to the upper part of the museum, a lecture room, reading room, library and rooms for professors. The third floor is devoted to laboratories of histology, pathology and bacteriology and the necessary subsidiary offices.

Connected with the main building and forming its EAST WING is a structure of 90 feet by 40, and one story high. This contains the laboratories, lecture room and other offices of anatomy and physiology. Its floors are of impermeable granolithic cement, the walls lined by enamelled white brick, and the ceilings covered with sheet steel.

A second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating, ventilation, lighting and the elevators.

The SURGICAL OPERATING THEATRE is a separate building in the rear of the main building, and is furnished with rooms for forge, instruments, water heater, &c. The lighting and equipment, and the facilities for demonstration, have been specially attended to.

The GENERAL PATIENTS' WARD, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths and

all necessary appliances. The floor is of impermeable granolithic cement, and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet.

THE ISOLATION WARD, 54 feet by 15, has its stalls absolutely separated from one another and each opening by its own outer door. It has the usual granolithic floor, with walls of vitrified brick and painted sheet steel ceilings.

THE MORTUARY BUILDING has impermeable floor, walls of enamelled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

Another building of 51 feet by 20 will be devoted to clinical uses.

These, with a cottage for the stud groom, complete the list of State buildings erected for Veterinary College. The equipment will be made as complete as possible for both educational uses and original research.

VETERINARY COLLEGE YEAR.

The Veterinary College year for 1896-7 begins Tuesday, September 15, 1896, and closes Thursday, June 17, 1897, being divided into three terms, with one intermission of twelve days at Christmas, and one of nine days in the spring. Students must present themselves for registration on the days fixed for that purpose.

ENTRANCE EXAMINATION.

Candidates for admission to the State Veterinary College, excepting those specified below, must pass satisfactory examinations in the following subjects :

A. IN SEPTEMBER, 1896.

1. In *English*. One hour of examination is assigned to answering questions upon the books marked *A*. Two more hours are occupied with writing three essays (250 words each) upon subjects taken from the books marked *B*.

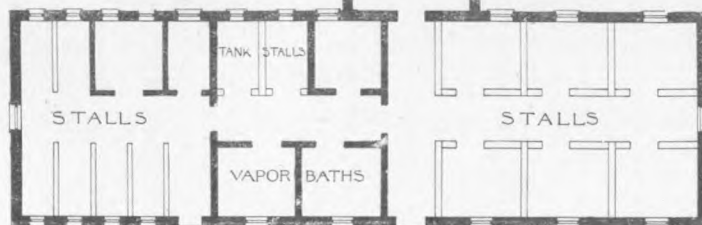


CONTAGIOUS WARD



MORTUARY

FODDER
ROOM



PLAN OF GENERAL WARD

The books prescribed for 1896 are : *A.* Shakespeare, *A Midsummer-Night's Dream* ; De Foe, *History of the Plague in London* ; Irving, *Tales of a Traveller* ; Scott, *Woodstock* ; Macaulay, *Essay on Milton* ; Longfellow, *Evangeline* ; George Eliot, *Silas Marner*. *B.* Shakespeare, *The Merchant of Venice* ; Milton, *L'Allegro, Il Penseroso, Comus*, *Lycidas* ; Webster, *First Bunker Hill Oration*.

For 1897 : *A.* Shakespeare, *As You Like It* ; De Foe, *History of the Plague in London* ; Irving, *Tales of a Traveller* ; Hawthorne, *Twice Told Tales* ; Longfellow, *Evangeline* ; George Eliot, *Silas Marner*. *B.* Shakespeare, *The Merchant of Venice* ; Burke, *Conciliation with America* ; Scott, *Marmion* ; Macaulay, *Life of Samuel Johnson*.

For 1898 : *A.* Milton, *Paradise Lost*, Books i and ii ; Pope, *Iliad*, Books i and xxii ; The Sir Roger de Coverly papers in the *Spectator* ; Goldsmith, *The Vicar of Wakefield* ; Coleridge, *The Ancient Mariner* ; Southey, *Life of Nelson* ; Carlyle, *Essay on Burns* ; Lowell, *The Vision of Sir Launfal* ; Hawthorne, *The House of the Seven Gables*. *B.* Shakespeare, *Macbeth* ; Burke, *Conciliation with America* ; De Quincey, *Flight of a Tartar Tribe* ; Tennyson, *The Princess*.

The object of the examination is to test the candidate's ability to express himself clearly and correctly ; also, to test his familiarity with the works prescribed.

No candidate markedly deficient in English will be admitted to any course in the University.

Regents' diplomas are not accepted in place of the entrance examination, unless they cover six academic English counts, including English Composition, or three full years of the English course established by the Regents, February, 1893. School certificates are not accepted in place of the entrance examination. But candidates coming from schools the certificates of which have been accepted in other subjects may obtain exemption from the one-hour examination in books marked *A*, by submitting specimens of school work upon these books. Printed directions to this end must be procured from the Registrar, not later than the first of January.

Candidates (except those admitted to advanced standing from other colleges) wishing to receive credit for Freshman English will be required to pass a special examination in the University work of that year. Printed directions are to be obtained from the Registrar, not later than the first of June.

2. In *Geography*, political and physical ; as much as is contained in the larger school geographies, though more careful treatises such as those of Longmans and of Keith Johnston are recommended.

3. In *Physiology and Hygiene* ; the equivalent of Martin's "The Human Body" (briefer course), and of Wilder's "Health Notes" and

"Emergencies." The treatises of Hutchinson, Huxley, Jenkins and Walker are accepted as equivalents of Martin.

4. In *American History*; Montgomery's "Leading Facts in American History," or its equivalent.

5. In *Arithmetic* [including the metric system of weights and measures], as much as is contained in the larger American and English text books.

6. In *Plane Geometry*, as much as is contained in the larger American and English text books.

7. In *Algebra* [through quadratic equations, and including radicals and the theory of exponents], as much as is contained in the larger American and English text books.

As a substitute for Plane Geometry and Algebra, candidates may offer one of the following subjects :

8. Elementary French (see below) understood to be equal to eight Regents' counts, or two years of high school French.

9. Elementary German (see below) understood to be equal to eight Regents' counts, or two years of high school German.

10. Entrance Latin (see below) understood to be equivalent to ten Regents' counts, or two and one-half years of high school Latin.

11. Entrance Greek (see below) understood to be equivalent to eight or ten Regents' counts, or two to two and one-half years of high school Greek.

B. IN JUNE AND SEPTEMBER, 1897, AND THEREAFTER.

1. English. 2. Geography. 3. Physiology and Hygiene. 4. American History. 5. Arithmetic. 6. Plane Geometry. 7. Algebra. (As above under A) and any three of the following :

8. Elementary French. 9. Elementary German. 10. Entrance Latin. I., Grammar and Cæsar. 11. Entrance Latin. II., Virgil, Cicero and Composition. 12. Entrance Greek. 13. An amount of any group of the following making the equivalent of two years of high school work : Physics, Botany, Geology, Vertebrate Zoology, Invertebrate Zoology, Advanced French, Advanced German.

In *French*. French grammar and translation at sight of ordinary nineteenth century prose. The student should have read four hundred duodecimo pages of at least three different authors, not more than one-half being from works of fiction.

First and second year French, upon a Regents' diploma, would be accepted as an equivalent for the Elementary German required for admission.

All applicants are required to present at the examination a statement from their teachers of the amount of French previously read, the text books used and the proficiency attained.

(The following requirements for admission to Cornell University in Elementary German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale and Cornell Universities.)

Elementary German. *A.* The rudiments of grammar, and especially with these topics : The declension of articles, adjectives, pronouns, and such nouns as are readily classified ; the conjugation of weak and of the more usual strong verbs ; the commoner prepositions ; the simpler uses of the modal auxiliaries ; the elementary rules of syntax and word order. The proficiency of the applicant may be tested by questions on the above topics and by the translation into German of simple English sentences. *B.* Translation at sight of a passage of easy prose containing no rare words. It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the classroom, is recommended.

Applicants for admission offering elementary or advanced German are required in each case to present a statement from their teacher, mentioning the text books used and the authors read, including the number of pages translated from German into English and English into German.

First and second year German, upon a Regents' diploma, would be accepted as an equivalent for the requirements of elementary German for admission.

In *Latin*. Examinations in the following authors, with questions on the subject matter, contractions, and the formation and inflection of words : I. Cæsar, four books of the Gallic War, or an equivalent amount of Cornelius Nepos. II. Virgil, six books of the *Æneid* with the prosody ; Cicero's six orations, including the four against Catiline ; and Latin Composition based on Allen's and Jones's Latin Composition.

In *Greek*. Candidates are expected (1) to have read, at least, one hundred pages of Attic prose and eighteen hundred lines of Homer ; (2) to have acquired such facility in reading at sight as will enable them to read without previous preparation, but with the aid of a vocabulary of unusual words, simple passages of Attic prose ; (3) to be thoroughly familiar with the inflectional forms, the principles of derivation and the outlines of syntax ; (4) to have completed Jones's Greek Prose Composition, or the first two parts of Allinson's.

ADMISSION ON "REGENTS' VETERINARY STUDENTS' CERTIFICATE."

Students are admitted without further examination on the Regents' *Veterinary Student Certificate*. For students entering in 1896, and who will graduate not later than 1899, the Regents' Veterinary Students' Certificate is given on passing a successful examination upon two years of high school work, or 24 Regents' counts.

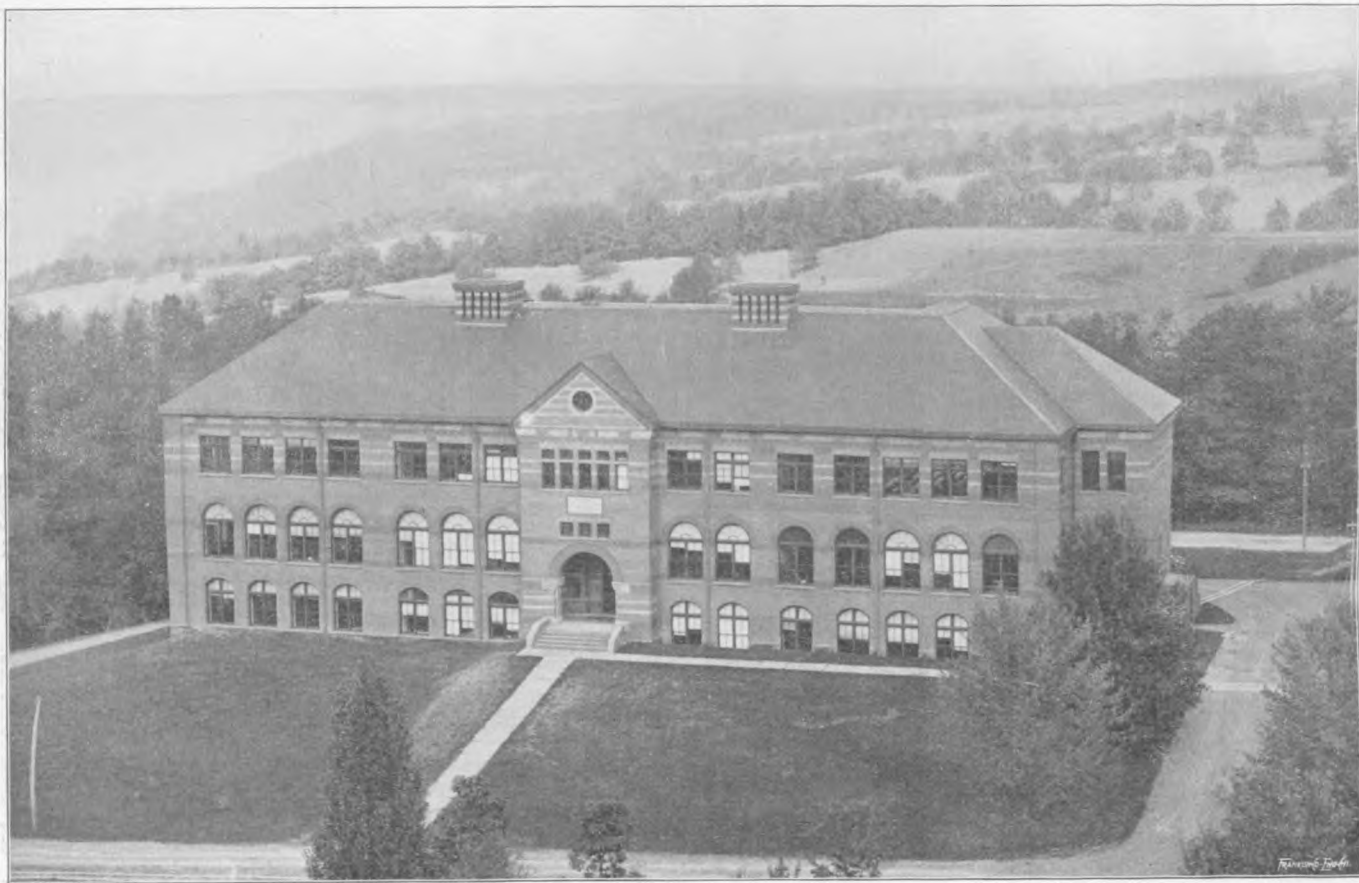
For students entering in 1897, and thereafter, it is based on four years of high school work, or 48 Regents' counts.

Full information may be obtained by addressing "Examination Department, University of the State of New York, Albany."

ADMISSION TO ADVANCED STANDING.

Graduates of other Veterinary Colleges, and undergraduates of such institutions who present letters of honorable dismissal, may be admitted provisionally to such standing, and upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study, and to the evidence of proficiency exhibited. Every such candidate is required, at the time of making his application, to forward to the Director of the Veterinary College, along with a catalogue of the institution in which he has studied, a careful statement, duly certified, of the studies which he has pursued, and the degree of proficiency attained therein, including his record at the entrance examinations. To avoid delay in arranging the course, these credentials should be presented at an early date, in order that the status of the applicant may be determined, as far as is possible, before his arrival. Application for credit, in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to a later date in his course.

A student who has thus been admitted provisionally to a class, may, after a residence of at least one term, be granted full and regular standing in that class, if, having taken the



MORSE HALL—CHEMISTRY.

regular studies of the term, he give proof, by passing the regular term examinations with a record as high as is required for graduation, that he is able to go on satisfactorily with the class to which he has thus been temporarily assigned. Should he be unable to pass these examinations, special examinations may then be held, or the terms of his admission revised, and he shall take the position and rank to which he may thereby be found entitled.

In the case of students thus admitted, the amount of work must be equal to at least fifteen hours a term for each term in the University.

By Chapter 860 of the Laws of New York of 1895, students who had matriculated in a Veterinary Medical School before October 1, 1895, and who shall graduate before July 1, 1898, are exempt from the requirements of the entrance examinations, which is demanded of all graduating after the date last named.

COURSES IN VETERINARY MEDICINE.

With the view of raising the standard of veterinary instruction, it is intended to establish a graded course extending over four years, as in the various departments of Cornell University, and in the best veterinary schools abroad. As a step towards this, a three years' course has been laid out for students entering in 1896. This is a decided advance upon any Veterinary College in America, as the majority of even the three year schools give only five months' instructions per year, amounting to but fifteen months in all; while, with an academic year of nine months, the New York State Veterinary College furnishes a total instruction-period of twenty-seven months. Add to this that the Veterinary Practice Statute, prescribing two years of successful high school work as the condition of entering on veterinary studies in 1896, and four years of high school work for admission in 1897, adds more than an additional year to anything demanded on the part of American veterinary schools, and ensures that the student, with a mind already trained to mental processes, will acquire

much more in the same length of time than the untrained mind can possibly do.

THREE YEARS' COURSE IN VETERINARY MEDICINE.

LEADING TO THE DEGREE OF D.V.M.

<i>First Year, 1896-7.</i>	<i>1st Term</i>	<i>2d Term</i>	<i>3d Term</i>
General Inorganic Chemistry. M. W. F.	3-----	3-----	3
Anatomical Methods ; General Descriptive Anatomy. M. T. W. Th.	4-----	4-----	4
Microscopic Methods. M. T. W. Th. F.	5-----	-----	-----
Histology. M. T. W. Th. F.	-----	5-----	-----
Embryology. M. T. W. Th. F.	-----	-----	5
Veterinary Physiology. M. T. W. Th.	4-----	4-----	-----
Veterinary Materia Medica and Pharmacy. M. T. W. Th.	-----	-----	4
Breeds and Breeding of Domestic Animals. Dissections.	2-----	2-----	2
	18	18	18

Second Year, 1897-8.

Organic Chemistry. M. W. F.	3-----	3-----	3
Physiological Chemistry. T. Th.	2-----	2-----	2
Veterinary Medicine : Principles and Practice, Definitions, Etiology, Symptomatology, Prophylaxis, Diathetic Diseases ; Diseases of Digestive Organs, Liver, Pancreas, Spleen. M. W. F.	3-----	3-----	3
Veterinary Sanitary Science and Police : Con- tagion, Microbes, Toxins, Enzymes, De- fensive Proteids, Antitoxins, Chemiotaxis, Phagocytosis, Susceptibility, Immunity, Contagious Diseases. T. Th.	2-----	2-----	2
Veterinary Surgery : Principles and Practice. M. W.	2-----	2-----	2
Veterinary Teratology and Obstetrics. T. Th.	2-----	2-----	2
Parasites and Parasitism. W. F.	2-----	-----	-----
Veterinary Therapeutics. T. Th.	-----	2-----	2
Operative Veterinary Surgery.	-----	-----	-----
Clinical Veterinary Medicine.	-----	-----	-----
Bacteriology.	2-----	2-----	2

THREE YEARS' COURSE IN VETERINARY MEDICINE.

LEADING TO THE DEGREE OF D.V.M.

<i>Third Year, 1898-9.</i>	<i>1st Term.</i>	<i>2d Term</i>	<i>3d Term</i>
Veterinary Medicine : Principles and Practice, Definitions, etc.; Diseases of the Respiratory, Circulatory, Lymphatic, Nervous, Urinary, Cutaneous, Occular and Aural Systems. M. W. F.	3-----	3-----	3
Toxicology. T. Th.	2-----	-----	-----
Veterinary Jurisprudence : Unsoundness, Vices, Blemishes, Abnormalities, Redhibitory Defects, Age, Warranty, Certificates. T. Th.	2-----	2-----	2
Veterinary Surgery : Antiseptic, Dental, Pedal ; Shoeing. M. W.	2-----	2-----	2
Surgical Pathology. T. Th.	2-----	2-----	2
Zootechny, F.	1-----	1-----	1
Pathology and Pathological Anatomy.	-----	3-----	4
Dissections. Post Mortem Examinations. Clinical Veterinary Medicine, daily. Operative Veterinary Surgery, daily. Seminary Work in Veterinary Medicine, Surgery, Examinations for Soundness, State Medicine, etc. Thesis.	-----	-----	-----

COURSES AND MEANS OF INSTRUCTION.

(Subjects taken under instructors in Cornell University are marked with an asterisk.)

* CHEMISTRY.

The department of Chemistry offers in all thirty-five courses of instruction. The veterinary student will avail of the following : Lectures and recitations in Inorganic Chemistry, 2 hours per week ; Laboratory work, $2\frac{1}{2}$ hours per week ; Organic Chemistry, 3 hours a week for one year ; Physiological Chemistry, 2 hours a week for one year ; Toxicological Chemistry, 2 hours a week for one term. Morse Hall, built at a cost of \$80,000, is exclusively devoted to

Chemistry, and an annex of four stories is already arranged for. The laboratories furnish the most ample accommodation for practical work, and the lectures are fully illustrated by specimens, demonstrations and lantern views. The chemical library, in the building and accessible to students, contains complete sets of all important journals, and is very fully supplied with works of reference and standard books on chemistry and allied subjects.

* ENTOMOLOGY AND INVERTEBRATE ZOOLOGY.

The admirably appointed laboratory of entomology is in White Hall, and the elaborate museum in McGraw Hall; while the breeding and study of the live invertebrates are mainly conducted in the Insectary on East Avenue. A special course in Helminthology and Parasites will be given to the veterinary students.

MICROSCOPE AND MICROSCOPICAL METHODS.

A course of lectures and laboratory work, covering 5 hours a week for one term, gives the student a comprehensive working knowledge of the use of the microscope and the methods of microscopic investigation of animal tissues.

VERTEBRATE HISTOLOGY.

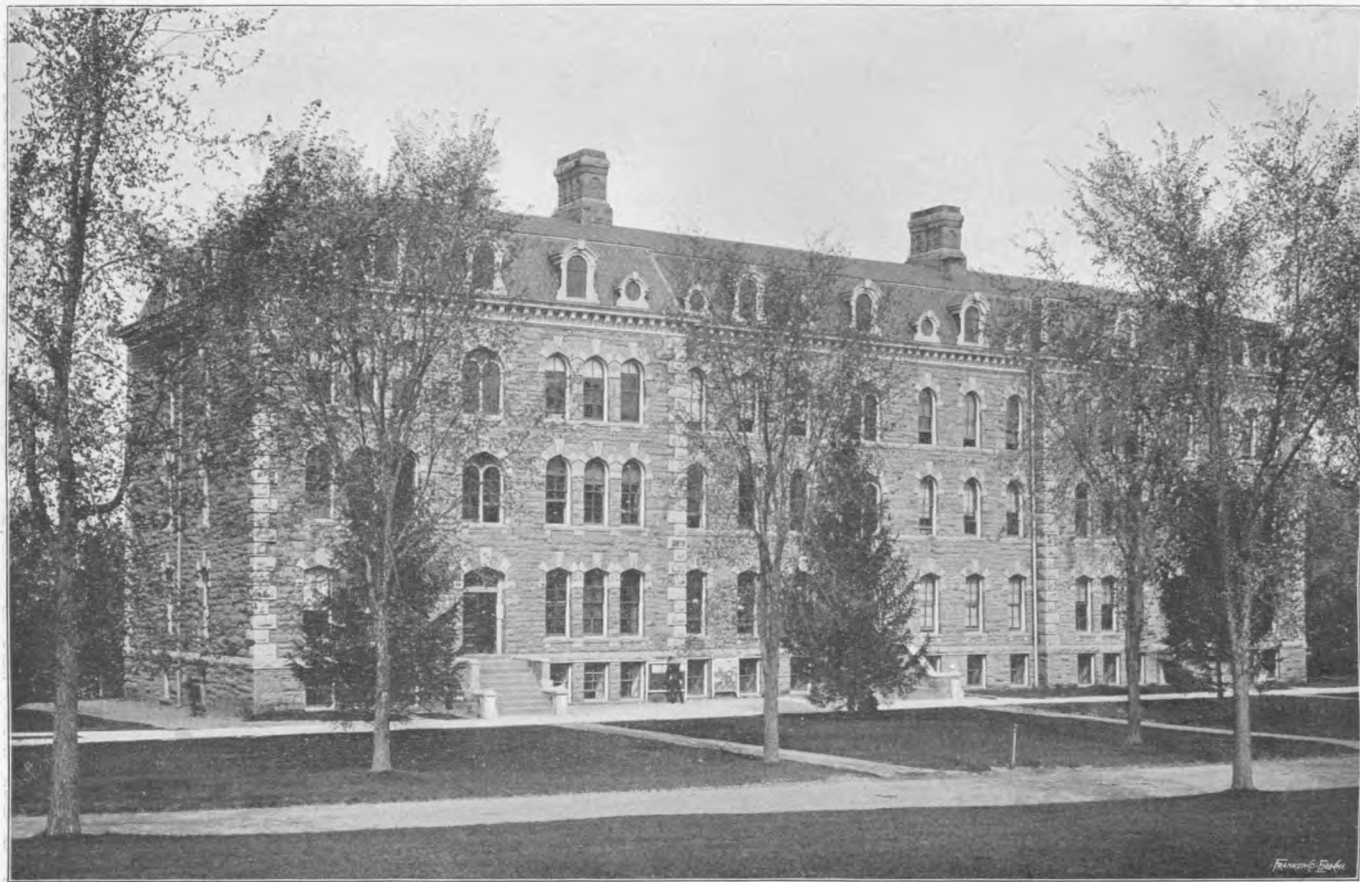
This is taught in a 5 hours' course for one term, with an abundant supply of the best microscopes and other necessary apparatus. The student receives a thorough preparation for the successful study of Anatomy, Physiology, Embryology and Pathology.

EMBRYOLOGY.

A comprehensive study of this whole subject is given in a course of 5 hours a week for one term.

* BREEDS, BREEDING AND MANAGEMENT OF FARM LIVESTOCK.

A course of 2 hours a week for two terms is given on Breeds, Breeding, Selection and Management of Dairy and



WHITE HALL—ENTOMOLOGY, PARASITES.

Beef Cattle. Another course of one term is given on Breeds, Breeding and Care of Horses, Sheep and Swine. These lectures are given in Morrill Hall.

DESCRIPTIVE ANATOMY OF HORSE, OX, SHEEP, SWINE, DOG AND POULTRY.

This course, given in the north wing of the State Veterinary College main building, will include 4 lectures a week throughout one year, and 3 lectures in the first term of the second year. It will be profusely illustrated by dry and wet specimens, dissections, diagrams, models and lantern views. The Auzoux models afford valuable illustration for class room demonstration and private study. In the laboratory as much time as possible will be devoted to dissection, and every student will be required to go over each genus of animal in this way prior to graduation. Demonstrations will be given daily in the laboratory by the professor.

PHYSIOLOGY OF HORSE, OX, SHEEP, SWINE, DOG AND BIRD.

This will be conducted as lectures and demonstrations throughout one year. It will consider, for the different farm animals, the physiology of the blood and sanguification, of circulation, of respiration, of digestion, of absorption, of nutrition, of heat production, of metabolism, of the secretions, of the skin, of motion, of phonation, of the nervous system, of the sense organs, and of reproduction. These exercises will be conducted in the north wing of the State Veterinary College main building.

TOPOGRAPHICAL ANATOMY OF THE DOMESTICATED ANIMALS.

A course of lectures and demonstrations on Regional Anatomy of the Farm Animals will give special attention to the topic in its diagnostic and surgical aspects, while embracing the physiological and pathological significance as well. These will be given in the north wing of the main building.

PRINCIPLES AND PRACTICE OF VETERINARY SURGERY.

This course, extending over the year, will embrace lectures and illustrative operations upon all the domestic animals. It will cover Inflammation, Abscess, Ulceration, Gangrene, and Neoplasms. The different kinds of wounds and their tendency in the various animals ; shock, wound fever, infection of wounds, pyogenic, septicæmic, erysipelas, tetanus, rabies, glanders, anthrax, hæmorrhagic anthrax, malignant œdema, etc.; methods of healing in wounds ; treatment of wounds ; wounds of different parts and structures ; fractures, luxations, sprains ; injuries and diseases of joints ; diseases of bones ; surgery of the blood vessels, respiratory organs, digestive organs, urinary organs, generative organs ; skin, lymphatic and blood glands ; tumors, simple and malignant ; cancers ; amputations ; plastic and reparative surgery ; anæsthesia and anæsthetics ; bandaging ; casting and securing for operations, etc.

ANTISEPTIC AND ASEPTIC SURGERY.

A course on this subject will consider its applicability and success in the different genera of domestic animals ; the condition, of the buildings, the health of the subject, the antisepsis of the animal, of the operator, of assistants, of sponges, towels and instruments, of dressings and bandages. The bactericidal power of the normal tissues, the conditions for selection of aseptic and antiseptic methods, the dry and moist methods, the modes of healing, the demands and methods for drainage, etc.

SURGICAL PATHOLOGY.

The morbid conditions, macroscopical and microscopical incident to the various surgical diseases, will be fully treated, and the interdependence of various surgical maladies, and of these with medical affections, will receive due attention. The differences incident to the various genera of farm animals will form a prominent feature of this course.

VETERINARY DENTAL SURGERY.

A course on Veterinary Dentistry will treat of the general structure of the teeth and gums in the different genera ; the development of the teeth ; anomalies in number, size or direction ; fractures and dislocations of teeth ; caries ; inflammations of the pulp, periodontal membrane and jaw bone ; overgrowth of teeth from defective wear, in malformed jaws, broken teeth, misdirected teeth, superfluous teeth, or absence of teeth. The effects of the state of health and nutrition during dentition, and of the different kinds of food on the teeth, and the action of irritants in causing dentinal tumors, will receive attention. Also the effects of dental disease on insalivation, digestion and nutrition, upon biting and driving, and upon nervous disorders.

VETERINARY PEDAL SURGERY AND HORSE-SHOEING.

A course of lectures and demonstrations on the diseases and surgery of the foot of the horse and other domestic animals, and upon the shoeing of horses, mules and oxen, will extend over one term, 3 hours a week. Under Shoeing will be considered the various metals and other materials used as shoes, the forging and fitting of the shoe, the preparation of the foot, the effect of correct or faulty adjustment on the foot itself, on the bones, joints, muscles and tendons of the limb, and on action ; the shoes and shoeing of the different classes of horses ; expansion and anticontraction shoes ; shoes for pathological conditions ; weights, spreaders, etc. The preservation of the natural foot, the securing of uniform bearing and pressure, the forms that conduce to ease, comfort and grace of movement, and the methods of nails and nailing, will receive special attention. Level and curved shoes, shoes with and without cogs (calks), tips, periplantar shoes, and others, will be fully discussed. The sharpening, or "frosting" of the shoes for ice, and the many forms of removable ice-cogs and frost sandals, will be reviewed. Under the many diseases of the foot, the interdependence of the mechanism of foot and limb, will be treated, and the therapeutics adapted to the benefit of both.

VETERINARY PATHOLOGY AND PATHOLOGICAL ANATOMY.

An extended course under this heading will deal with the intrinsic nature of the different morbid processes in the various domestic animals ; the arrest or alteration of functions ; the modification of nutrition and metabolism ; the significance of trophic and calorific changes ; of circulatory and respiratory variations ; of differences of innervation ; of impaired and exalted sensation, or motion ; of altered secretions, and of microscopical and macroscopical lesions, etc. Dealing with the nature and essential causes of disease, this is the rational supplement of anatomy, physiology and histology, and furnishes the sound basis for the scientific practice of medicine and for a rational prophylactics and therapeutics.

VETERINARY BACTERIOLOGY.

An extended course in Bacteriology will seek to cover the rapidly expanding field of microbial disease ; the life-history and artificial culture of pathogenic bacteria and zoophytes ; their existence otherwise than as animal parasites ; compulsory parasites and incidental (facultative) parasites ; aerobic and anaerobic bacteria, differences under varying environment ; bacteria grown in different genera or culture media ; bacterial products, toxic and nontoxic, alkaloidal and neutral, peptic products ; relations of bacteria and their products to the living tissues of different organs in different genera of animals ; phagocytosis, antitoxins, globulins, nucleins ; immunity of genus, family or individual, innate or acquired ; theories of immunity ; methods of securing temporary and prolonged immunity ; antitoxins, toxins ; weakened bacteria, or those having changed habit ; minimum dose ; combination with antiseptics, or with antagonistic microbe ; mutual reactions of bacterial products ; mutual antidotal action ; antagonistic physiological action of bacterial products ; devitalizing action of the products of one bacterium on the life of another variety, etc. Extensive laboratory accommodation is provided on the upper floor of the main building, where a thorough equipment will offer the best



DAIRY SCHOOL BUILDING.

facilities for special education and original investigation in this subject.

HELMINTHOLOGY AND PARASITISM.

In addition to the University course in the natural history of animal parasites, a special course will be given in the Veterinary College on the pathogenic effects of the respective parasites, animal and vegetable, on the different farm animals, and the best methods of their prevention and treatment. The collection of animal parasites, already extensive, will be constantly increased so as to make the demonstrations more nearly perfect in this line.

VETERINARY OBSTETRICS.

A course of lectures on Veterinary Obstetrics will be given in the State Veterinary College, with suitable illustrations, diagrams, specimens and models. The equipment in instruments is the best in the country, and no pains will be spared to make the course as nearly perfect as possible. It will embrace the anatomy, physiology and development of the generative organs in the different genera of farm animals, their relation to other parts of the animal organism, the physiology of reproduction and gestation, the feeding and management of the pregnant animal, the anomalies and diseases of gestation, normal and difficult parturition and the causes of the latter; teratology, varieties of monsters, theory of their formation, moles; the operations and other treatment required in the different forms of dystokia, the management of the parturient state, and the diseases attendant on and following parturition, with their treatment.

PRINCIPLES AND PRACTICE OF VETERINARY MEDICINE.

This course, extending over two years, 3 hours a week, will deal with the principles of medicine, and the specific diseases and groups of diseases; their etiology, symptoms, nature, diagnosis, prevention and treatment. Constitutional diseases; ephemeral fever—fatigue fever, and toxic fever from transient

disorders of various kinds ; diseases of digestive organs, of the respiratory organs, of the circulatory organs, of the blood glands, of the blood and of sanguification, of the urinary organs, of the skin, and of the nervous system, will be dealt with as seen in the different domesticated mammals and birds. While diseases of the horse shall be given full attention, elaborate attention will be given to the morbid conditions of all the other and often less valuable farm animals, as well. The too common practice of giving attention to the solipede alone and letting the other animals practically go by default, will be carefully guarded against, the object being to educate an all round comparative veterinary pathologist, whose advice may be trustfully sought for farm animals of all kinds. The location of the college in the city of Ithaca, surrounded by a busy agricultural community, offers special facilities for practical illustrative work along all these lines.

VETERINARY MATERIA MEDICA AND THERAPEUTICS.

A course of lectures, extending over two terms, on the articles of the materia medica, their sources, nature, preparations, and physiological and therapeutical action on the different genera of animals. These will be extensively illustrated by crude drugs and pharmaceutical preparations, and by apparatus and demonstrations used in pharmaceutical manipulation. Instruction in prescription and prescription writing will also be given. These will be delivered in the main building of the college.

VETERINARY PHARMACY AND PRACTICAL THERAPEUTICS.

In the practical course in compounding prescriptions, all students must take part in turn, and to such an extent as to familiarize them with the methods, manipulation and practical applications.

ZYMOTIC DISEASES AND VETERINARY SANITARY SCIENCE AND POLICE.

A course of 2 hours a week for one year will deal with zymotic diseases, theories of zymosis and contagion ; the conditions of soil, climate, season, weather, agriculture, trade, war, etc., as causative factors ; bacteria and other parasites as factors ; bacterial toxic products as causes ; diagnosis, segregation, occision, disinfection, immunization ; State control, animal census, marking, registration, inspection in life and *post mortem*, quarantine, compensation, appraisement, killing, disinfection, etc. In case of enzootic diseases, the necessary attention to buildings, drainage, soils, exposure, wells, basins, ponds, factories, and other local causes, will be fully dealt with. Each zymotic or contagious disorder will be made a special study, commencing with those due to local insanitary conditions, followed by such as attack animals only while sparing the human being, and concluding with those in which man and animals reciprocate in the maintenance and diffusion of the infection. These will be given in the main building of the State Veterinary College.

INSPECTION OF MEAT AND MILK, BUTTER AND CHEESE.

This course will treat of the physical and chemical properties of the healthy meat of the various animals used for food, of putrefying meat, of soured meat ; of the flesh of animals with constitutional or blood diseases, of that of emaciated or cachectic animals ; of meat infested with animal or vegetable parasites—psorosperma, trichina, echinococcus, cysticercus, strougyles, stephanurus, distoma, filaria, pentastoma, acarus, cestrus, actinomycosis, haplococcus ; of meat from animals affected by contagious diseases—anthrax, tuberculosis, erysipelas, glanders, rabies, lung plague, milk-sickness, rinderpest, pyæmia, septicæmia, etc. Also the meat of animals suffering from other febrile or inflammatory diseases, or of their consequences. The inspection of milk will deal with its chemical and physical alterations, with

the presence of poisons, and of bacteria and disease products as shown by the centrifuge, microscope and culture.

WARRANTY AND COMMERCIAL JURISPRUDENCE IN RELATION TO VICES, DEFECTS AND UNSOUNDNESS ; EXAMINATIONS, DIAGNOSIS, CERTIFICATES.

This course will cover the ground of written and implied warranty, of damages incurred by breach of such warranty ; of the systematic professional examination of each genus of animals, for vices, communicable diseases and unsoundness ; the forms of certificates and the giving of evidence.

VETERINARY OPHTHALMOLOGY.

A course will be given on the diseases and defects of the eyes of all domestic animals, with their causes, prevention and treatment. Instruction in the use of the ophthalmoscope will constitute a part of this course.

EXTERNAL FORM AND ZOOTECHNICS.

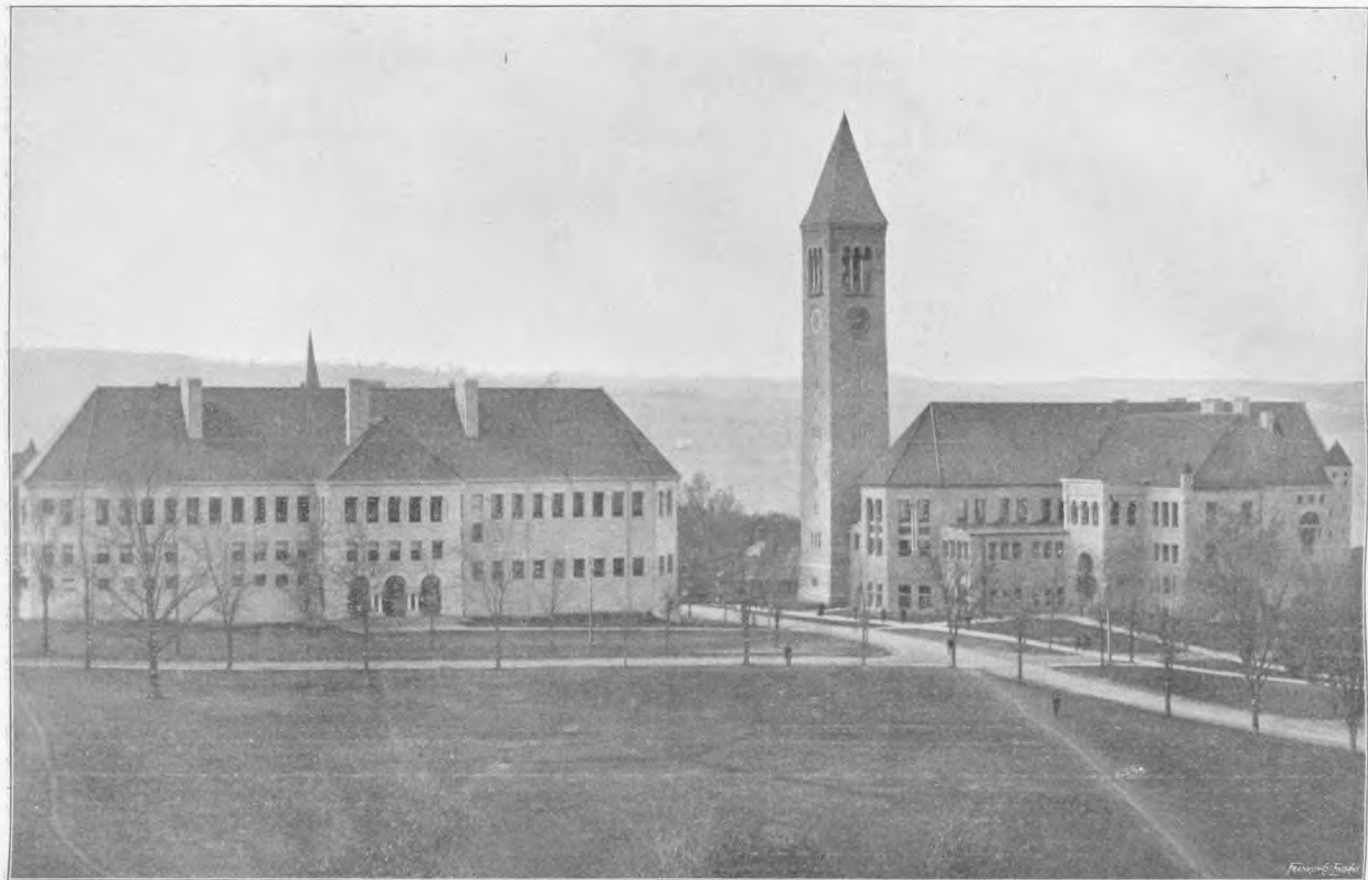
A course will be given on external form in its relation to use—power, action, early maturity, fattening, etc.; and on the elements of zootechny which have not been treated in connection with breeds and breeding.

CLINICAL VETERINARY MEDICINE.

The practice of veterinary medicine will have daily illustrations in the free clinics give at prescribed hours, as well as in the case of patients detained in the wards. The senior students will be required to serve as ward clerks and assistants in turn, so as to familiarize them with the methods of treatment.

CLINICAL AND OPERATIVE SURGERY.

The free clinic will furnish cases for operative surgery from all classes of domestic animals, and senior students will act in turn as assistants and clinical clerks, and will operate on special subjects under the direction of the professor of surgery.



LAW SCHOOL AND LIBRARY.

REPORTS ON HYPOTHETICAL, AND REAL CASES IN SANITARY POLICE AND VETERINARY JURISPRUDENCE.

Subjects will be assigned to senior students and each must furnish satisfactory reports in this field of study.

CORNELL UNIVERSITY LIBRARY.

The library building, the gift of the Hon. Henry W. Sage, was built at a cost of nearly \$300,000. It contains about 185,000 volumes, and has shelf-room for 450,000. Nearly 600 periodicals are regularly received. The reading room has desks for 220 readers, and on its walls a reference library of 8,000 volumes. An endowment fund of \$300,000, the gift of Mr. Sage, furnishes an income which secures a rapid yearly increase of the library. The library of zoological, physiological, medical and veterinary works accumulated in the past 27 years is now extensive and valuable.

TUITION FEES AND OTHER CHARGES.

Tuition fees will be \$100 per annum, excepting in the case of the holders of State Scholarships, to whom all tuition is free.

Laboratory material will be charged for at cost, and every person taking laboratory work must deposit with the Treasurer security for the materials to be used.

EXPENSES.

The expense of text books, instruments, etc., may be as low as \$25 per annum. Board, with room, fuel and light, may be had in Ithaca at about \$4 per week.

THE HORACE K. WHITE PRIZES.

These prizes, established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the Department of Veterinary Science, as follows: To the first in merit, \$20; to the second in merit, \$10.

OPENINGS FOR VETERINARIANS IN AMERICA.

1st. In the United States Cavalry and Artillery there is a demand for a limited number of veterinarians.

2nd. In the Bureau of Animal Industry a number of veterinarians are employed professionally, as inspectors of live animals, inspectors and superintendents of quarantine stations, inspectors of markets and abattoirs, inspectors of pork for trichina and larval tapeworms, and investigators in bacteriology and pathology.

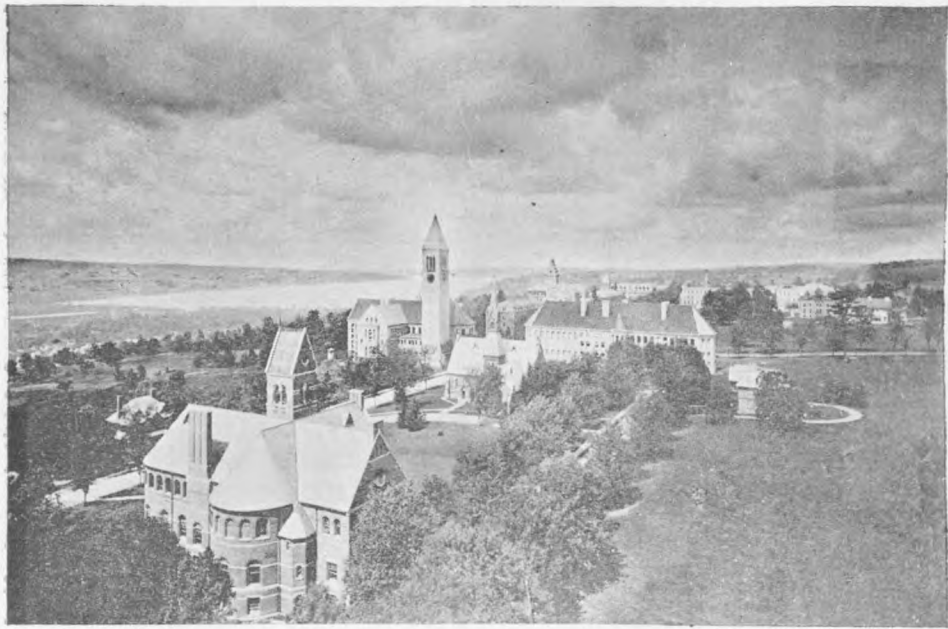
3rd. In the different States there are appointments as State Veterinarians, and in some as County or District Veterinarians, to attend to preventable diseases of animals.

4th. The time is not far distant when each municipality must have its veterinary inspectors of markets, abattoirs and butcher meat, as well as of milk and other dairy products.

5th. Accomplished veterinary pathologists are needed in all the States to serve on tuberculosis and other commissions, so that work in this field may be conducted intelligently and successfully on scientific lines. Such work on our herds can only be carried on by those specially trained in the anatomy, physiology, hygiene and pathology of the lower animals.

6th. Educators in comparative pathology are wanted in Agricultural and Veterinary Colleges, and experiment stations, and must ere long be in demand for every Medical College which aims to keep abreast of the times.

7th. There are always openings in the wide field of private veterinary practice. With a ratio of three farm animals to every human being, and with less than one veterinarian to every ten doctors of medicine for man, the balance of opportunity seems to be largely in favor of the veterinary practice, and this preponderance must steadily increase with the recovery of stock values and with the increase in numbers and individual value of farm animals.



VIEW OF CORNELL UNIVERSITY CAMPUS FROM THE SOUTH.